CLAIMS

We claim:

1. A method of writing information to a synchronous memory device comprising:

   examining a present word to be written, said present word having N bits, each of said bits having a low or high value;

   comparing said present word to a previous word having N bits and determining a number of transitions of bits from said low value in said previous word to said high value in said present word;

   inverting said present word when said number of transitions is greater than or equal to N/2;

   writing said present word to said synchronous memory device.

2. The method of claim 1 further including sending a data inversion mask (DIM) bit with said present word to indicate when said present word is inverted.

3. The method of claim 1 wherein said synchronous memory device comprises a DRAM.

4. The method of claim 1 wherein said word represents data.

5. The method of claim 1 wherein said word represents graphical data.

6. The method of claim 1 wherein said information represents one or more commands.

7. The method of claim 1 wherein said information represents address information.

8. A method of reading information from a synchronous memory device comprising:

examining a present word in said device to be read, said word having N bits, each of said bits having a high value or a low value;

comparing said present word to a previous word having N bits and determining a number of transitions of bits having said low value in said previous word to bits having said high value in said present word;

inverting said present word when said number of transitions is greater than or equal to N/2;

reading said present word from said device.

9. The method of claim 8 further including sending a data inversion mask (DIM) bit with said present word to indicate when said present word has been inverted.

10. The method of claim 9 wherein said DIM bit is sent on an existing pin on said memory device.

11. The method of claim 10 wherein said existing pin is a data mask (DM) pin.

12. The method of claim 8 wherein said previous word is presumed to have all low values when said previous word is unknown.

13. The method of claim 8 wherein said previous word is presumed to have all high values when said previous word is unknown.

14. The method of claim 8 wherein said present word is not inverted when said previous word is unknown.

15. The method of claim 8 wherein said present word is latched and used as said previous word in a subsequent read operation.

16. The method of claim 8 wherein said information comprises data.

17. The method of claim 8 wherein said information comprises graphical data.

18. The method of claim 8 wherein said information comprises one or more commands.

19. The method of claim 8 wherein said information comprises address information.

20. The method of claim 8 wherein said synchronous memory device comprises a DRAM.

21. The method of claim 8 wherein said system includes biasing means to bias said previous word so that said present word is biased to have more of one logical value whether or not said present word is inverted.